



India Meteorological Department
FDP STORM Bulletin No.44 (18-04-2017)

1. CURRENT SYNOPTIC SITUATION at 0300UTC of the Day:

SYNOPTIC FEATURES:

The upper air cyclonic circulation over north Telangana & neighbourhood now lies over North Interior Karnataka & neighbourhood and extends upto 0.9 km above mean sea level. A trough extends from this system to Lakshadweep area upto 0.9 km above mean sea level.

An upper air cyclonic circulation lies over Odisha & neighbourhood at 1.5 km above mean sea level. A trough extends from this system to Comorin area at 1.5 km above mean sea level with an embedded upper air cyclonic circulation over south Coastal Andhra Pradesh & neighbourhood at 1.5 km above mean sea level.

An upper air cyclonic circulation lies over north Haryana & neighbourhood and extends upto 0.9 km above mean sea level. A trough extends from this system to Vidarbha upto 0.9 km above mean sea level with an embedded upper air cyclonic circulation over Vidarbha extending upto 0.9 km above mean sea level.

An upper air cyclonic circulation lies over south Pakistan and adjoining southwest Rajasthan and Saurashtra & Kutch between 1.5 km and 3.1 km above mean sea level.

An upper air cyclonic circulation lies over northeast Uttar Pradesh & neighbourhood at 1.5 km above mean sea level.

The trough from South Interior Karnataka to south Tamilnadu extending upto 0.9 km above mean sea level has become less marked.

The upper air cyclonic circulation over north Odisha & adjoining Jharkhand & Chhattisgarh extending upto 1.5 km above mean sea level has become less marked. The trough from this system to Coastal Karnataka across Andhra Pradesh at 1.5 km above mean sea level has also become less marked.

A fresh western disturbance likely to affect western Himalayan region from tomorrow onwards

SATELLITE OBSERVATIONS during past 24hrs and current observation:

Current Observation (based on 0300UTC imagery of INSAT 3D):

Scattered low/medium clouds with embedded isolated weak convection were seen over Bay Islands. Scattered low/medium clouds were seen over J & K, Uttarakhand, northeast Uttar Pradesh, south Chhattisgarh, Odisha, Jharkhand, Bihar, West Bengal, Sikkim, north-eastern states, coastal Karnataka, north coastal Andhra Pradesh and Kerala.

Arabian Sea:

No significant clouds over the region.

Bay of Bengal & Andaman Sea:

Scattered low/medium clouds with embedded weak to moderate convection were seen over southeast Bay and Andaman Sea

Past Weather:

Convection:

Moderate to Intense convection was observed over South Interior Karnataka & Tamilnadu.

OLR:

Up to 270 wm^{-2} was over J&K, HP, Uttarakhand, North East States, South Interior Karnataka, Kerala & North-west Tamilnadu.

Up to 310 wm^{-2} was over Bihar, West Bengal, Coastal Andhra Pradesh & Coastal Tamilnadu.

Up to 340 w m^{-2} was over rest parts of India.

Jet Stream:

No Jet stream and trough observed over India.

Dynamic Features:

Positive shear tendency observed over S Bihar Uttar Pradesh C Rajasthan and negative shear tendency observed over rest parts of India.

A low wind shear is observed over Rajasthan Uttar Pradesh, N Bihar, Punjab, Haryana, Himachal Pradesh, Uttarakhand while high wind shear is observed over rest parts of India.

A positive Vorticity field is seen over South Interior Karnataka, Rayalaseema Telangana Jharkhand & north Gujarat.

Negative low level convergence observed over J&K Konkan.

Positive Low Level Convergence observed over rest parts of India

Precipitation:

IMR: Rainfall upto 10mm was observed over South Interior Karnataka & North-West Tamilnadu.

HEM: Rainfall upto 14 mm was observed over South Interior Karnataka North-West Tamilnadu & South-East Manipur

RADAR and RAPID observation:

Isolated strong echo (dBZ >55 and height around 12km) was seen in DWR Machilipatnam at 1301hrs IST. No other significant echo was seen in DWR Composite at 1250hrs IST

RAPID RGB imagery of 1200hrs IST indicates convective cells over Nicobar Islands. It also indicated isolated convective cell over north Andhra Pradesh.

Environmental condition (dust etc) and its forecast based on 00UTC of date:

Not Received

2. NWP MODEL GUIDANCE:

NCMRWF (NCUM Forecasts based on 00 UTC of the day):

Not received (Technical delay)

IMD GFS(T1534) based on 00UTC of the day:

Not received

3. IOP ADVISORY FOR 24 and 48 Hrs:

Summary and Conclusions:

Day 1 & Day 2:

Presently, the upper air cyclonic circulation lies over North Interior Karnataka & neighbourhood and extends upto 0.9 km above mean sea level. A trough extends from this system to Lakshadweep area upto 0.9 km above mean sea level, due to this system entire Karnataka and interiors Tamilnadu, coastal Andhra Pradesh including Kerala will experience thunderstorm with gusty winds on Day-1.

An upper air cyclonic circulation lies over Orissa & neighbourhood at 1.5 km above mean sea level. A trough extends from this system to Comorin area at 1.5 km above mean sea level with an embedded upper air cyclonic circulation over south Coastal Andhra Pradesh & neighbourhood at 1.5 km above mean sea level. Due to that on Day-1, Orissa will experience thunder squall with hail.

Due to the system, on Day-2, similar activities will be there over Karnataka and interiors Tamilnadu, coastal Andhra Pradesh including Kerala

24 hour Advisory for IOP:

Orissa

South and North Interior Karnataka

Kerala and Interior Tamilnadu, Eastern Parts of Telangana

GWB

Assam, Meghalaya and Nagaland, Manipur, Mizoram and Tripura

Coastal Andhra Pradesh

48 hour Advisory for IOP:

Kerala and Interior Tamilnadu

South Interior Karnataka, Eastern Parts of Telangana

Sub Himalayan West Bengal, Bihar, GWB

Assam, Meghalaya and Nagaland, Manipur, Mizoram and Tripura

ForNCMRWFNWPproducts:(<http://www.ncmrwf.gov.in/HomePage/NEPS-prod-1.php>)

ForIMDNWPproducts:(http://nwp.imd.gov.in/diagpro_new.php)

ForSynopticplotteddataandcharts

<http://amssdelhi.gov.in/>

<http://www.amsskolkata.gov.in/>

ForRAPIDtool:

<http://rapid.imd.gov.in/>

LowLevelWinds

http://satellite.imd.gov.in/archive/INSAT-3D-IMAGER/3D-PRODUCTS/AMV/LLW/MAR_2017/?C=M;O=D

Upperlevelwinds

http://satellite.imd.gov.in/archive/INSAT-3D-IMAGER/3D-PRODUCTS/AMV/HLW/MAR_2017/?C=M;O=D

Past24hourHEMandIMRrainfall(upto03UTCoftoday)

IMR:http://satellite.imd.gov.in/img/3Ddaily_imr.jpg

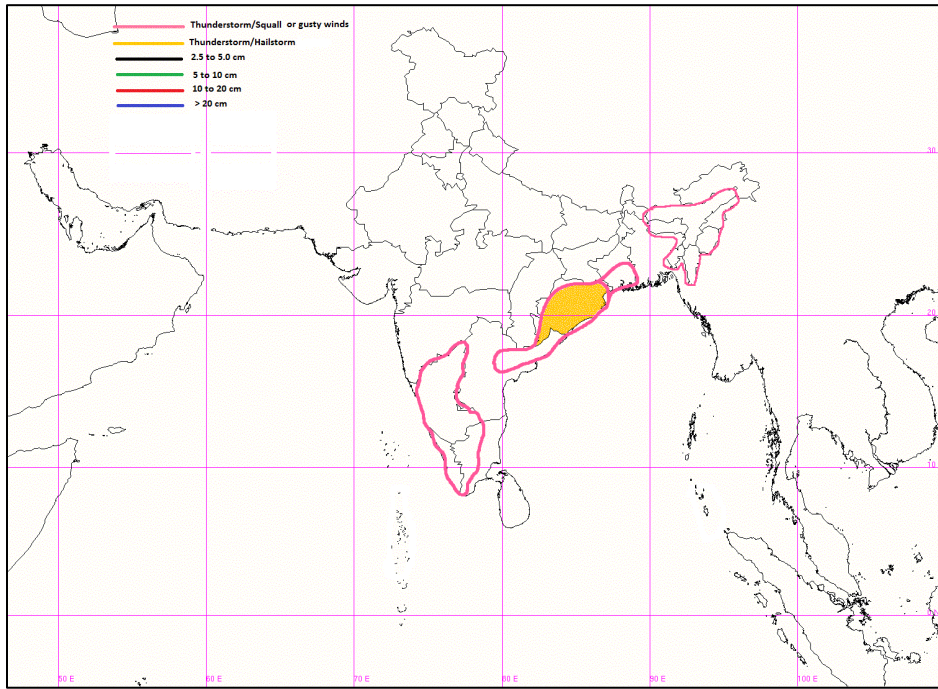
HEM:http://satellite.imd.gov.in/img/3Ddaily_he.jpg

ForRadarimagesofthepast24hoursincludingmosaicofimages:

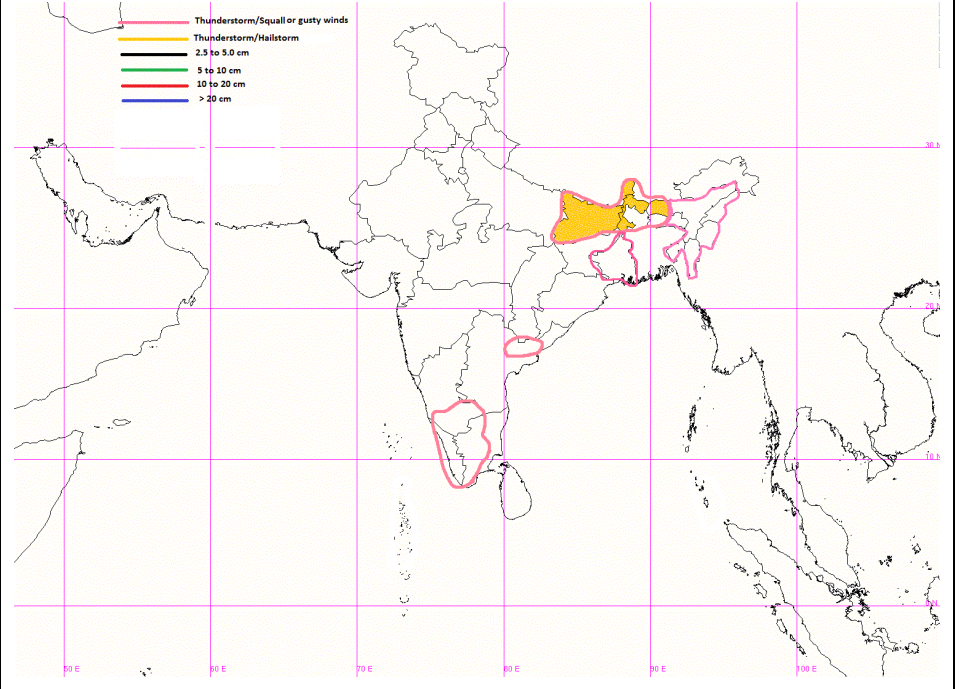
http://ddgmui.imd.gov.in/dwr_img/

SatellitesounderbasedT-Phigram

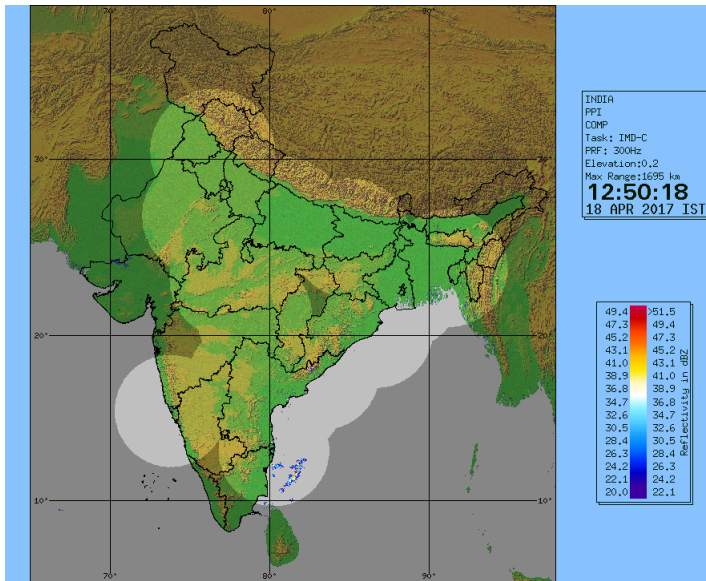
http://satellite.imd.gov.in/map_skm2.html



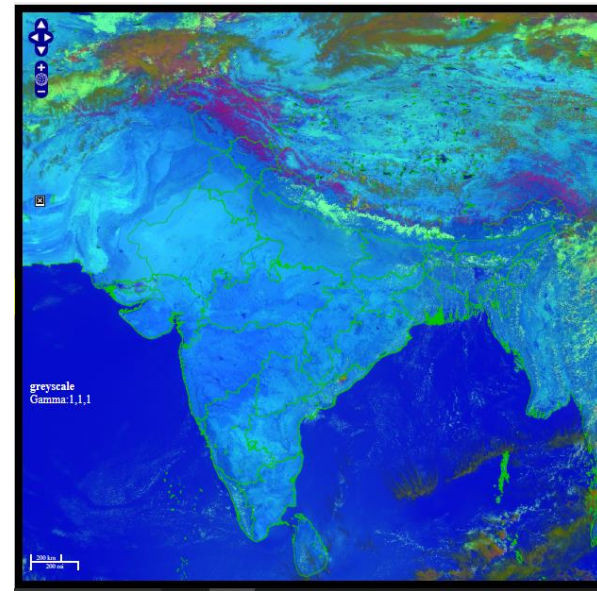
IOP Advisory for 24hours



IOP Advisory for 48hours

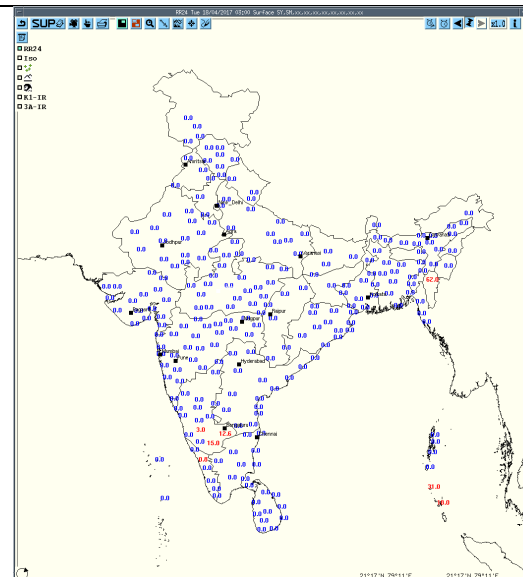


DWR Composite at 1250 hrs IST of today



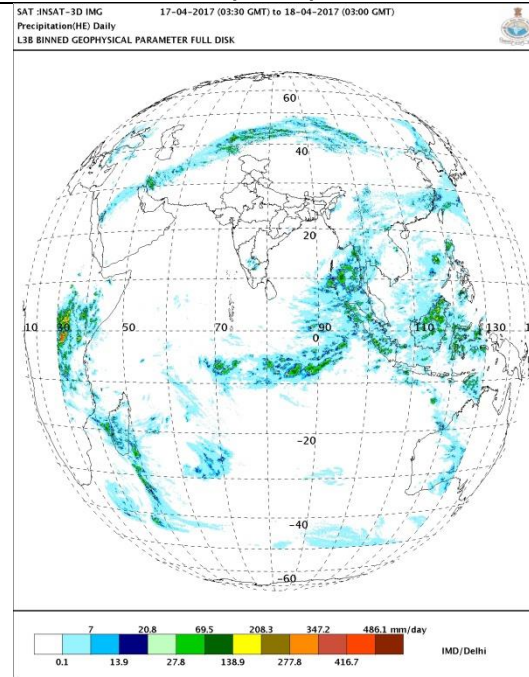
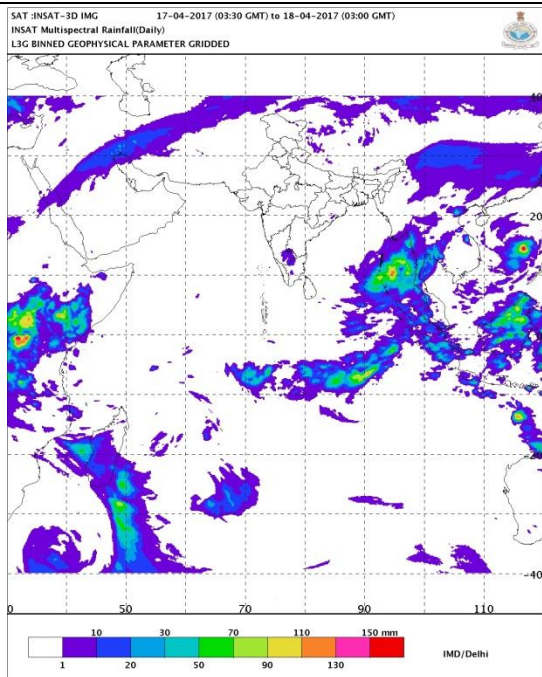
RAPID RGB Image of INSAT 3D at 1200 hrs IST of today

Not Received



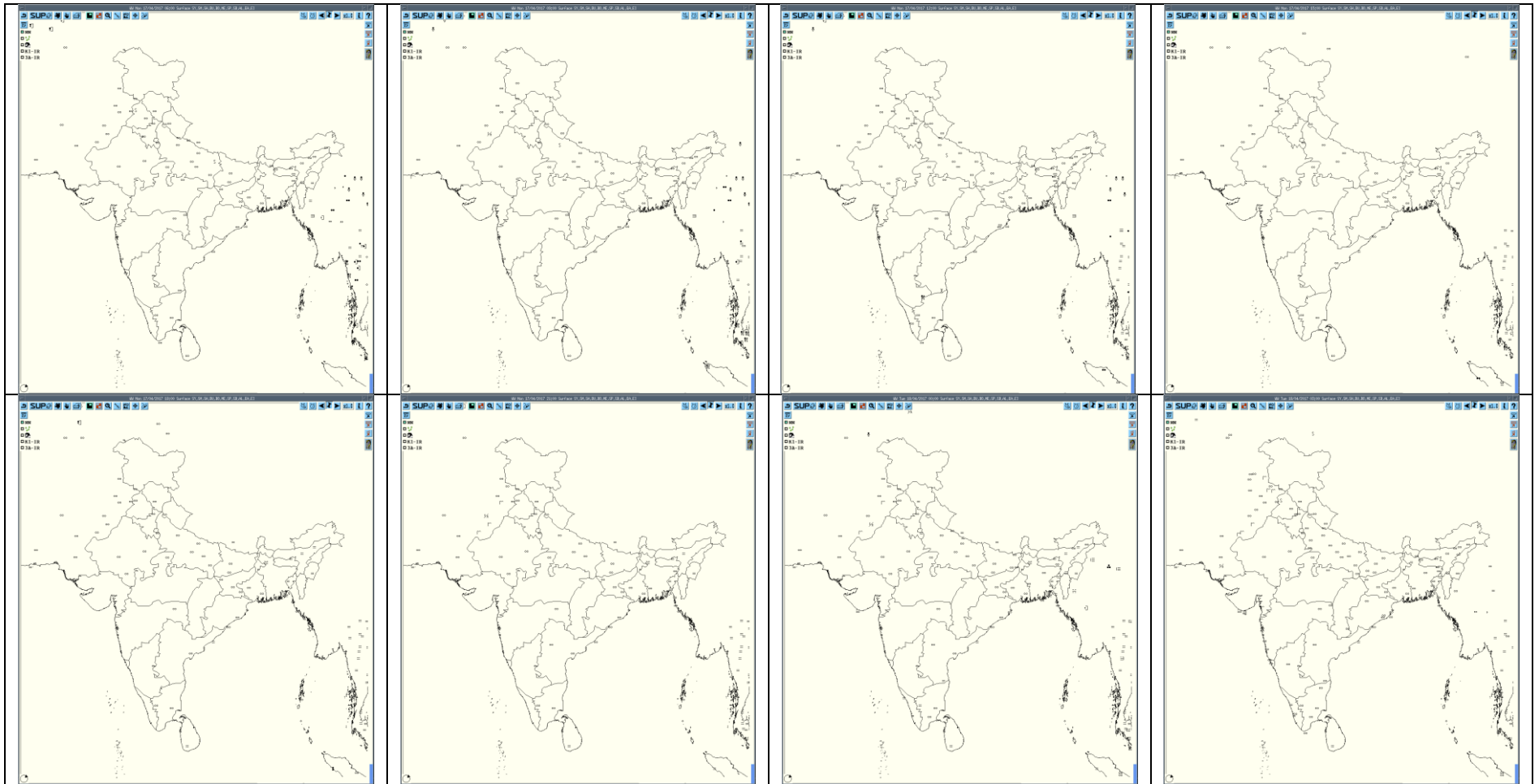
Forecast Dust Concentration for 00UTC of 19th April

Accumulated 24 Hour rainfall (in red) recorded at 0300 UTC of today

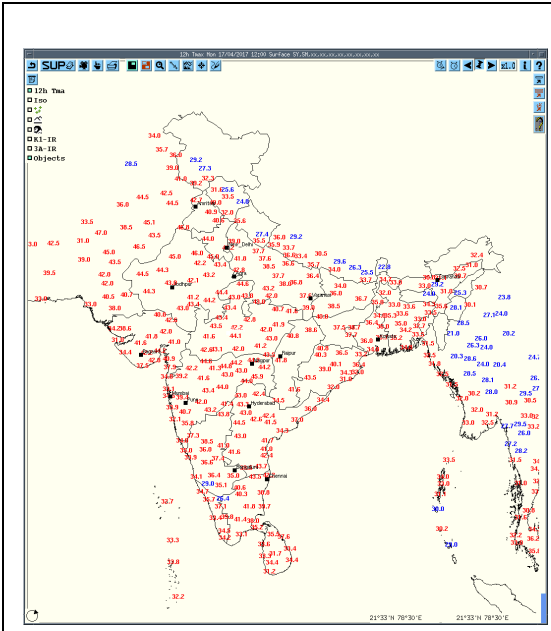


IMR Rainfall

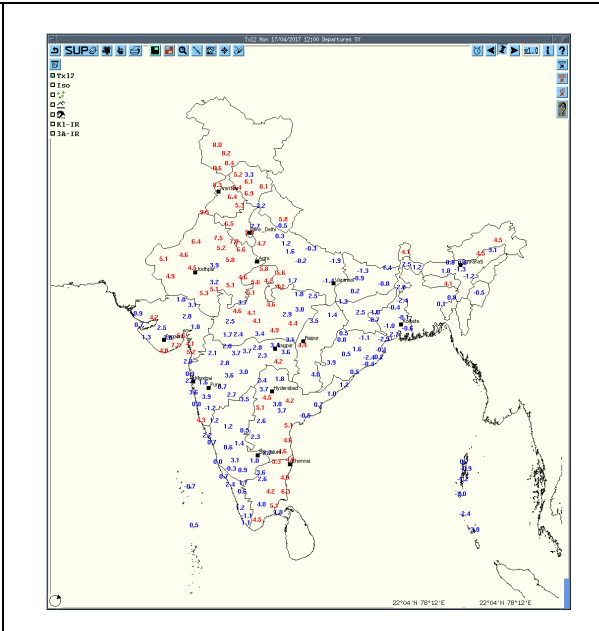
HEM Rainfall



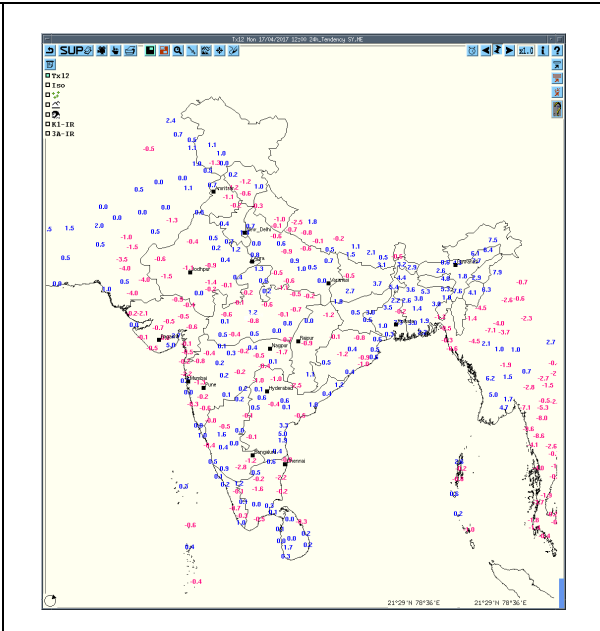
3 hourly Past weather at 06, 09, 12, 15, 18, 21 UTC of yesterday and 00 & 03 hrs UTC of today



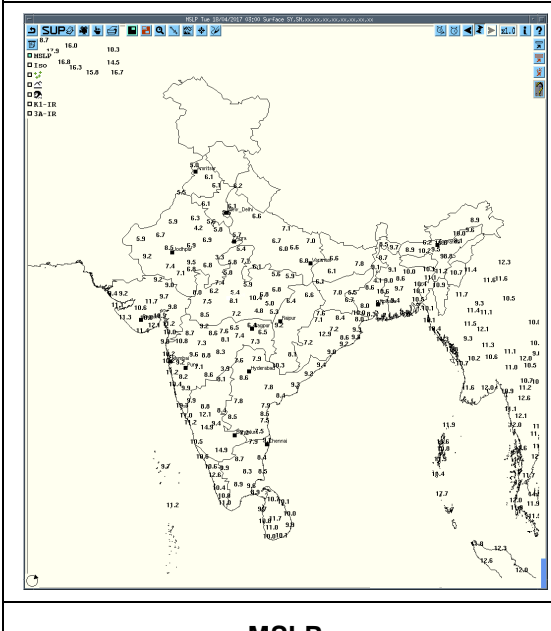
Tmax



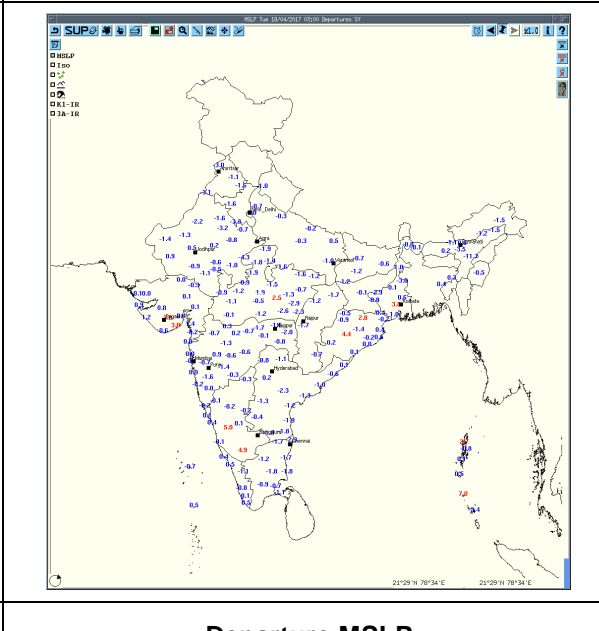
Departure Tmax



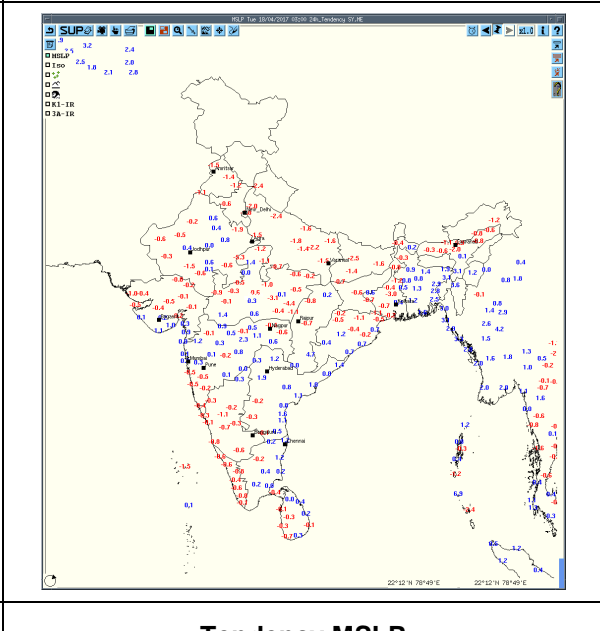
Tendency Tmax



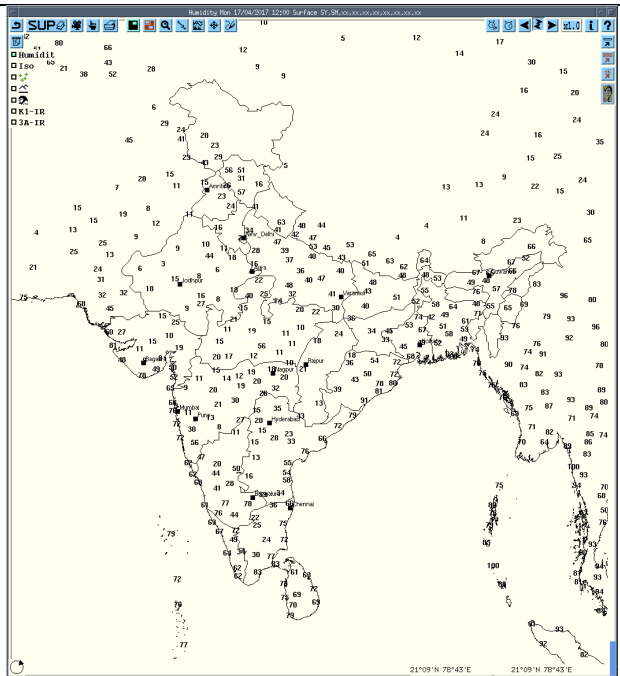
MSLP



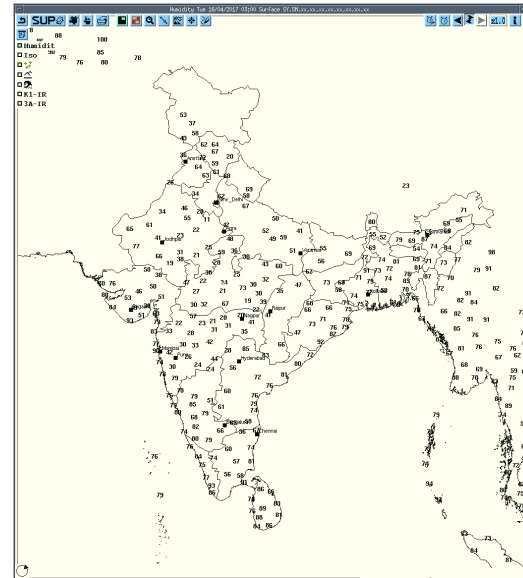
Departure MSLP



Tendency MSLP



RH at 12UTC yesterday



RH at 03UTC today

Realized weather past 24 hours (Based on SYNERGIE Products)					
Date	Time of Reporting	Name of Station Reporting	Region	STATE	Weather Event
17-04-17	0600 UTC	Nil	Nil	Nil	Nil
17-04-17	0900 UTC	Nil	Nil	Nil	Nil
17-04-17	1200 UTC	Bengaluru	South India	Karnataka	Thunderstorm
17-04-17	1500 UTC	Nil	Nil	Nil	Nil
17-04-17	1800 UTC	Nil	Nil	Nil	Nil
17-04-17	2100 UTC	Nil	Nil	Nil	Nil
18-04-17	0000 UTC	Nil	Nil	Nil	Nil
18-04-17	0300 UTC	Nil	Nil	Nil	Nil

Past 24 hours DWR Report:










Radar Station name	Date	Time interval of observation (UTC)	Organization of the cells (Isolated single cells/multiple cells/convective regions/squall lines) with height of 20 dBZ echo top and maximum reflectivity	Formation w.r.t radar station and Direction of movement	Remarks	Associated severe weather if any	Districts affected
Jaipur	18-04-17	170300-180300	Nil	Nil	Nil	Nil	Nil
Patiala	18-04-17	170302-180252	Nil	Nil	Nil	Nil	Nil
Agartala	18-04-17	170300-180300	Nil	Nil	Nil	Nil	Nil
Nagpur	18-04-17	170302-172352	Nil	Nil	Nil	Nil	Nil
		180302-180312	Single	125 km E	< 10 dBZ		
Lucknow	18-04-17	170300-180300	Nil	Nil	Nil	Nil	Nil
Hyderabad	18-04-17	170852 –17 1152	Isolated cells with an average height of 10.6 Km with a max reflectivity of 53.5 dBZ	SSE (180 Kms) moving in Southerly Direction at a speed of 15 Kmph.	Cells started forming at 0852 UTC at SSE (180 Kms) from radar, Matured in size. Max	Thunderstorm with or without rain	NE of Nalgonda district.

					reflectivity was between 0942 and 1012 UTC and dissipated at 1152 UTC.		
		0852 – 1152 UTC	Isolated cells with an average height of 10.6 Km with a max reflectivity of 53.5 dBZ	SSE (180 Kms) moving in Southerly Direction at a speed of 15 Kmph.	Cells started forming at 0852 UTC at SSE (180 Kms) from radar, Matured in size. Max reflectivity was between 0942 and 1012 UTC and dissipated at 1152 UTC.	Thunderstorm with or without rain	NE of Nalgonda district.
Patna	18-04-17	170300-180300	Nil	Nil	Nil	Nil	Nil
Srinagar	18-04-17	170300-180300	Nil	Nil	Nil	Nil	Nil
Paradeep	18-04-17	170300-171800	Two Isolated single cells seen to develop around 1200 UTC having maximum reflectivity of 42 dBZ and heights exceeding 14 kms.	Position: Cell 1: Lat:21.71 N Lon: 85.43 E Cell 2: Lat:20.23 N Lon:84.32 E Movement is NWly and Ely respectively.	Cells seen to dissipate within two hours.	TS with light Rain.	Sundergarh, Debagarh, Angul, Sudergarh, Kandhamal, Nayagarh.
Machilipatnam		0741 to 0831 UTC	Isolated cell with average height of 9.6 km with maximum reflectivity of 55.5 dBZ	NE(249KM) , moving SW ly direction average speed of 12.0kmph	Cells started forming at 0741UTC at NE(249km) from radar. Maximum reflectivity during 0741 to 0821 and died down at 0831UTC	Possibility of Thunder storm and rain with light winds.	Visakhapatnam District (82.655Lon/17.885Lat)
		0851 to 1051 UTC	Isolated cell with average height of 10.5km with maximum reflectivity of 60.5 dBZ	NW(218KM) moving SE ly direction average speed of 15.7kmph	Cells started forming at0851UTC at NW(218km) from radar. Maximum	Possibility of Thunder storm and rain with light winds.	Khammam District near Mahabubabad (80.094Lon/17.610Lat)

					reflectivity during 0901 to 1041 and died down at 1051 UTC		
		0901 to 1131 UTC	Isolated cell with average height of 11.6km with maximum reflectivity of 60.5 dBZ	NW(199.4KM) moving SE ly direction average speed of 18.5kmph	Cells started forming at 0901UTC at NW(199.4km) from radar. Maximum reflectivity during 0911 to 1131 and died down at 1131 UTC	Possibility of Thunder storm and rain with light winds.	Khammam district (80.156Lon/17.677Lat)
		1031 to 1401 UTC	Isolated cell with average height of 10 km with maximum reflectivity of 60.5 dBZ	SW(173.1KM) moving SW ly direction average speed of 20.14kmph	Cells started forming at 1031UTC at SW(173.1km) from radar. Maximum reflectivity during 1031 to 1321 and died down at 1401 UTC	Possibility of Thunder storm and rain with light winds.	Prakasam district (79.555Lon/15.077Lat)
		1101 to 1201 UTC	Isolated cell with average height of 11.88 km with maximum reflectivity of 58 dBZ	NW(99.7KM) moving SW ly direction average speed of 6.6kmph	Cells started forming at 1101UTC at NW(99.7km) from radar. Maximum reflectivity during 1111 to 1151 and died down at 1201 UTC	Possibility of Thunder storm and rain with light winds.	Krishna district near Nandigama (80.561Lon/16.838Lat)
Kolkata	18-04-17	170311-180300	Nil	Nil	Nil	Nil	Nil
Vishakhapatnam	18-04-17	170900	Isolated single cell in NNW with average ht of 10 km and max reflectivity of 47 dBZ. Isolated multiple cells in	NNW at 72 kms NNE at 233	Moving in SSE Direction and getting intensified	-	!

			NNe with average ht of 12 km and max reflectivity of 55dBZ	kms.			
		171200	Isolated multiple cells in NE direction with average ht of 10 km and max reflectivity of 53dBZ	NEly at about 185 kms	Moving in NE Direction and dissipated.	-	⋮

∞	haze
☁	smoke
☼	dust or sand storm
☁	fog
☂	drizzle
•	rain
❄	snow
▽	showers
△	hail
⚡	thunderstorm
Weather Symbols	

		
+ thunderstorm	+ heavy thunderstorm	sandstorm or dust storm
		
squall	hail shower	tropical storm
		
+ tornado	+ lightning	+ hurricane

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